

CORNUS FLORIDA SUBSP. URBINIANA (ROSE) RICKETT FROM MEXICO: THE CORRECT NAME FOR "C. FLORIDA VAR. PRINGLEI"

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ABSTRACT

Plants from disjunct populations of *Cornus florida* L. in México are appearing in the United States nursery trade under the illegitimate name "*C. florida* var. *pringlei*." The correct and legitimate name for this taxon is *C. florida* subsp. *urbiniiana* (Rose) Rickett. New data are presented on morphological and flowering characteristics of the Mexican flowering dogwood to justify its subspecific status.

KEY WORDS: *Cornus*, Cornaceae, México

In a recent issue of the *American Nurseryman*, Lowrey (1990) described certain features of a very unusual flowering dogwood cultivated in Houston, Texas, that he named "*C. florida* var. *pringlei*." The "Pringle dogwood," a common name given by Lowrey (Lowrey 1990), now flowering in Texas and other locations as well, including the U.S. National Arboretum in Washington, D.C., originated from seed collected by Mr. Lowrey a number of years ago from a wild-occurring disjunct population of *C. florida* in the Sierra Madre Oriental mountains near Monterrey, Nuevo León State, México. This plant is now, or soon will be, entering the commercial nursery trade and be available to consumers.

The purposes of this paper are to: (1) show that the name or epithet "*pringlei*" is not valid at the level of species or variety, or any other botanical rank; (2) provide a valid botanical name at an appropriate rank for this Mexican flowering dogwood; and (3) describe and elaborate on the unusual characteristics of this taxon.

Application of correct botanical classification or identification (taxonomy) and the use of accurate and proper botanical names (nomenclature) are cornerstones of understanding essential to communication among and between

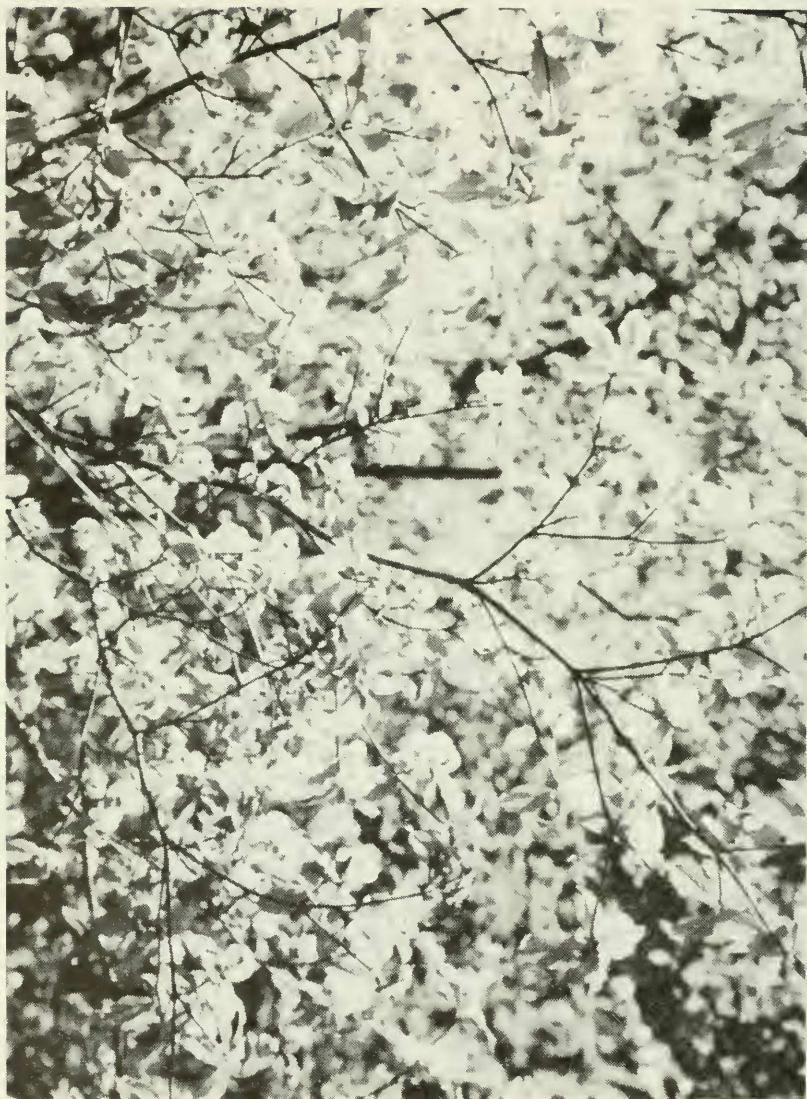


Figure 1. *Cornus florida* subsp. *urbiniana* (Rose) Rickett in México, Nuevo León State, Sierra Madre Oriental, near Monterrey. Photograph courtesy of Lynn Lowrey.

plant scientists, horticulturists, and nurserymen. Such communication is especially needed in the genus *Cornus* at the present time because of a renewed interest in the large bracted flowering dogwoods brought about by the discovery and rapid spread of the deadly dogwood anthracnose disease, which is now wreaking havoc among native United States populations of *C. florida* L. Santamour & Dudley (1992) recently presented a taxonomic and cytogenetic summary of *Cornus* to a group of plant pathologists and mycologists engaged in dogwood anthracnose research in order to increase their awareness and understanding of the extraordinary complexity of this genus. As new flowering dogwood germplasm is being sought, worldwide, for evaluation, disease testing, hybridization, and introduction to the nursery industry, we must assiduously guard against the misapplication and use of incorrect plant names before they become firmly entrenched in the parlance of the nursery trade and "popular" horticultural publications.

There never has been a properly described and validly published taxonomic plant entity called "*C. pringlei*" or "*C. florida* var. *pringlei*." All the standard references and appropriate floras have been consulted and checked. These names simply have never been published in a way that would grant them official taxonomic and nomenclatural status. Accordingly, these names should not be used for any living plants, cultivated or as they occur in natural wild habitats. The name "*C. pringlei*," however, does exist in the literature, but only as a *nomen nudum*, having been published without any of the information required by the *International Code of Botanical Nomenclature* (Greuter, et al. 1988) to establish and recognize the name.

Where, then, does the name "*pringlei*" come from? Cyrus Guernsey Pringle (1838-1911), a Vermonter, was an extraordinarily prolific and distinguished botanist and plant explorer. His explorations and collecting activity were concentrated primarily in México between 1885 and 1909, when he amassed nearly 16,000 herbarium collection numbers in multicats. By 1936, his collections were the basis of approximately 29 new genera, 1,200 new species and over 100 new varieties (*varietates* in the botanical sense) of plants indigenous to México. There is, indeed, adequate evidence that C.G. Pringle collected specimens of the unique Mexican *Cornus*, allied to *C. florida*, in the Sierra Madre Orientale above Monterrey, México, Nuevo León State. It was from this location, so many years later, that Frederick G. Meyer (retired taxonomist of the U.S. National Arboretum), Lynn R. Lowrey (presently at Anderson Landscape Services, Houston, Texas), and perhaps others, collected germplasm and introduced it into cultivation in the United States.

In an edited compilation of Dr. Pringle's field notes and diaries of his Mexican trips (Davis 1936), there occur several references to "*C. pringlei* Rose n. sp." On page 61 of the edited diaries, Pringle reported that on June 15, 1889 "I walked to the cañon of the Sierra Madre 10 miles to the southeast, collecting ... High in the cañon I also found *Cornus pringlei* Rose n. sp., a

tree eight to ten inches by 25 feet . . .” Pringle did not provide in his diary an herbarium specimen collecting number for *C. pringlei*, as he did for other genera and species collected that particular day or as he did throughout his 24 - year diary. Later, from a site very close to the first collection on June 15 (or even from the same tree?), on August 23, 1889, Pringle wrote “Descending from the mountain we collect on the way *Cornus pringlei* Rose n. sp., a tree a foot in diameter and 25 feet in height. . . .” Once again it is noted that the field collecting number is not cited. Then, in the “Classified List” (Davis 1936, p. 417) of Pringle’s collections “*Cornus pringlei* Rose n. sp.” is designated as Pringle collection number 2409, deposited *only* (authors’ emphasis) in the Pringle Herbarium (University of Vermont, Burlington; VT). *Cornus florida* L. is also listed in the Davis (1936) “Classified List” as Pringle collection number 2409. In Davis’s “Numerical List” of Pringle’s collections Pringle No. 2409 is cited twice: first as *Cornus florida* L., without an herbarium of deposit indicated; and then secondly as “*Cornus pringlei* Rose n. sp. P.,” the “P.” indicating the Pringle Herbarium as the only institution of deposit.

Who, then, was this “Rose” indicated by Pringle in his 1889 Mexican diary: “*Cornus pringlei* Rose n. sp.?” Joseph Nelson Rose (1862-1928) was an eminent, and somewhat controversial, botanist at the Smithsonian Institution in Washington, D.C. Dr. Rose was, in fact, responsible, as the publishing authority, for a large number of Pringle’s collections being recognized and published as new genera and new species. It can only now be deduced that Pringle’s opinion about his collection No. 2409 vacillated between being *C. florida* and a new species, which Pringle himself designated as “*C. pringlei*,” assuming and anticipating that Dr. Rose would name it after him, the original collector. However, Dr. Rose did not ever describe, name or publish the Mexican flowering dogwood after Dr. Pringle. This may well be because Dr. Rose possibly never saw or studied Pringle’s collection No. 2409 from the Sierra Madre near Monterrey, México. Or, if Rose did see the Pringle 2409 collection, he may have decided not to describe it as a new species as no inflorescence bracts were present, and only very immature fruit were evident. This fact is well proven by the chapter “Pringle’s Plants in Type Herbarium at the National Herbarium” (the National Herbarium is in the Smithsonian Institution Department of Botany; US) in Davis (1936). In May, 1992 the first author of this paper talked with Dr. David Barrington, Curator of the Pringle Herbarium in Burlington, Vermont and discovered that, indeed, a specimen of Pringle No. 2409 is deposited there (VT). The typical printed label of this collection states: “*Cornus pringlei* Rose n. sp.,” and indicates the locality as México, Nuevo León State, Cañon Sierras, near Monterrey. This Pringle 2409 specimen is provided with an interesting annotation by the late L.A. Charette, a former curator of that herbarium in the 1960’s, that indicated that “*Cornus pringlei* Rose” is a synonym of *Cornus florida* subsp. *urbiniiana* (Rose) Rickett, *Anales Inst. Biol. Univ. Nac. México* 21:92, 1950 (Rickett 1950). Charette

had apparently overlooked the 1945 validating publication of that combination, also by Rickett (1945). The first author of this paper discovered a duplicate specimen of *Pringle* 2409 collected on 23 August 1889, labeled *C. florida*, in the Gray Herbarium (GH) of the Harvard University Herbaria. This specimen had no inflorescence bracts, only developing fruit.

Although Dr. Rose did not name the Mexican flowering dogwood in the late 19th or early 20th centuries as "*Cornus pringlei*," he did finally describe, name, and publish the taxon as *Cornus urbiniiana* Rose sp. nov. in 1903 (Rose 1903), naming the new species for the collector "my good friend Dr. (Manuel) Urbina, acting director of the National Museum of México, by whom it was collected, and to whom I am under many obligations." He distinguished this new species from *C. florida* by its "much larger and comparatively narrow (involucral) bracts," pinkish, 5 cm long, 2 cm or more wide, tapering at the base. The type specimen chosen by Rose was collected by Manuel Urbina in April, 1891 in Vera Cruz State on Cerro de San Cristóbal near Orizaba, México, and the holotype was deposited in the type collection of the U.S. National Herbarium (US) at the Smithsonian Institution, Washington, D.C. A duplicate specimen (isotype) of this Urbina collection was deposited in the Herbario Nacional, México City; MEXU. It should be noted that this infraspecific taxon of *C. florida* apparently is represented in México by at least two separate populations: one in Nuevo León State, and the other in Vera Cruz State. Recent explorations indicate that it also occurs in Tamaulipas State (Faurey, pers. comm.).

Cornus urbiniiana Rose was reduced in rank from species status to *C. florida* var. *urbiniiana* by Wangerin (1910). Wangerin (1910) described his *C. florida* var. *urbiniiana*, called "Corona de Montezuma" and "Corona de San Pedro" locally in México, as distinct from typical North American *C. florida* by having oblong or narrowly obovate, "subchartaceous" involucral bracts with very short acuminate apices that are not at all cordate incised; these bracts are not spreading after anthesis but remain suberect and arcuate, convergent at the apices. In the literature of this Mexican taxon Wangerin (1910) is, then, the only authority prior to Lowrey (1990) to mention the unusual and novel character of the involucral bracts remaining erect throughout flowering with their apices "convergent:" this botanical term also meaning connivent (coming together) and adherent. However, under no circumstances are these bract apices fused or connate in any way as stated by Lowrey (1990). Temperate México is given by Wangerin (1910) as the natural distribution of *C. florida* var. *urbiniiana*, and he cited three herbarium specimens, two from Nuevo León State, and one from Vera Cruz State.

In a more recent taxonomic treatment of Mexican *Cornus*, Rickett (1945) regarded *C. urbiniiana* Rose as the basis and basionym for his *C. florida* subsp. *urbiniiana* (Rose) Rickett, comb. nov., with *C. florida* var. *urbiniiana* (Rose) Wangerin as a synonym. Five years later, Rickett (1950) again published the same new combination of subsp. *urbiniiana* (Rose) Rickett under *C. florida*.

However, the earlier Rickett article of 1945 has priority as the validating publication. In publishing the new subspecies combination Rickett (1945) mentioned the narrow, acute involucre bracts, the smaller number of flowers per inflorescence, and the reduced number of fruits per inflorescence cluster as minor, yet distinguishing, deviations from the "normal" *C. florida*. However, Rickett (1945) appeared to be unaware of the peculiar "fusion" or convergence, or adherence (to be explained below) of the involucre bract apices described and photographically illustrated by Lowrey (1990).

It is noteworthy that the "fusion" (apical coherence) of the involucre bracts of subsp. *urbiniana* is characteristic of all of the native plants observed by Lowrey (pers. comm.) in Nuevo León State as well as in plants cultivated in widely separated localities in the United States, grown from seed originally collected in Nuevo León and Vera Cruz States. These cultivated plants include all of those grown in Houston, Texas (Lowrey, pers. comm.), a plant (NA 57778) at the U.S. National Arboretum, Washington, D.C. (from Lowrey seed), a plant at the University of Washington Arboretum in Seattle from seed collected by F.G. Meyer on August 23, 1948 "along arroyo 6 mi. from Dulces Nombres in the Sierra Madre Oriental, Nuevo León State," and another plant (access. no. 865-48) growing at the University of Washington Arboretum in Seattle reported as having been grown from seed collected in Vera Cruz State.

It has been established that "*Cornus pringlei*" and "*C. florida* var. *pringlei*" are names without any official taxonomic and nomenclatural status, and that *C. florida* subsp. (or var.) *urbiniana* is the correct name for this plant. The question remains as to whether it should be named at the rank of variety (var.), or at the rank of subspecies (subsp.). Rickett (1945) based his categorization of *urbiniana* at the rank of subspecies on the fact of the geographic isolation of the Mexican population which is disjunct from the main body of the natural distribution range of *C. florida* var. *florida*, and the anomalous nature of the concepts and definitions of the term and rank of variety (*varietas*, pl. *varietates*) in the botanical literature of the time. For many years American and European botanists argued extensively and excessively about the terms "variety" and "subspecies," with the Americans, for the most part, resisting the term and botanical rank of "subspecies." It was probably Davis & Heywood (1965) who established criteria for these ranks on an international basis. The rank of subspecies is used in that book for geographically (and/or ecologically) isolated entities or populations which demonstrate some (at least three) correlated, distinct, and definable morphological character discontinuities. The term or rank of "variety" should be reserved for botanical taxa that may occur sporadically and randomly throughout a natural distribution of a species, and possess one to three definable morphological character differences. In the case of this Mexican flowering dogwood, which could be called "Urbina's dogwood," with unusual and consistent differential morphological characters that are consistently correlated with the natural geographic disjunction, the

use of the rank of subspecies (subsp.) is well justified.

There is the possibility, as yet not investigated, that in addition to a definite geographical disjunction *Cornus florida* subsp. *urbini*ana may be ecologically isolated to some extent, in that its natural habitat is in fairly dry limestone mountains. Lowrey (1990) commented that, because of this ecological factor, the plant "may adapt better to San Antonio, Texas and the Edwards Plateau than *C. florida*." However, based on the evidence of the thriving flowering tree of *C. florida* subsp. *urbini*ana at the U.S. National Arboretum, Washington, D.C. (USDA Hardiness Zone 7), this taxon successfully tolerates acidic and heavy clay soils.

As mentioned above, the involucre bracts of *Cornus florida* subsp. *urbini*ana from México are not "fused" as stated by Lowrey (1990). The tips of the bracts are, however, strongly adherent (or connivent, or coherent) from early development of the inflorescences and expansion of the involucre bracts (April in Washington, D.C.) through anthesis (the pollen shedding period) and present the "Chinese lantern" configuration described by Lowrey (1990). The following observations and measurements of *C. florida* subsp. *urbini*ana are based on a single, flowering tree growing at the U.S. National Arboretum (NA 57778), and on wild-collected and cultivated herbarium specimens deposited in the Herbarium of the National Arboretum (NA), studied in 1992. Comparisons with "normal" *C. florida* subsp. *florida*, when mentioned, are based on the cultivars 'Barton' and 'Cloud 9,' two popular and widely grown nursery selections. Careful examination of the tips of the bracts of subsp. *urbini*ana, under magnification, revealed the reason for this apical coherence or adherence. Ventrally, the bract apices are covered with a very dense white indumentum composed of slender, sinuous, and undulating hairs. Throughout the development of the inflorescence and bracts in the previous year the hairs of all bract apices are very tightly intermeshed and interlocked. The pressure exerted by the expanding narrow bracts of *C. florida* subsp. *urbini*ana is not sufficient to pull the hairs, and subsequently the bracts, apart. Conversely, the pressure exerted by the expanding, and much larger and wider bracts of *C. florida* subsp. *florida* is sufficient, for the most part, to separate their bract apices. Occasionally, the involucre bracts of some inflorescences of subsp. *urbini*ana do come apart naturally, but they remain "twisted" and are more or less erect, never flattened, horizontal, deflexed, or sometimes "floppy" as they are for subsp. *florida*. Coherence or adherence of bract tips has also been noted in plants of *C. florida* subsp. *florida* from many United States provenances when forced into flower, earlier than normal, in a polyhouse or greenhouse. When these plants flowered outdoors, the adherent bract trait disappeared. Mr. Fred Galle, former Director of Horticulture, Callaway Gardens, Pine Mountain, Georgia, has related (pers. comm.) that over 40 years ago he observed a number of 4 inch caliper trees of *Cornus florida* subsp. *florida* in private gardens in Knoxville, Tennessee that consistently displayed apically

“fused” involucre bracts.

The Galle observation of coherent inflorescence bract apices on *Cornus florida* subsp. *florida* is documented by an herbarium specimen in the Gray Herbarium (GH) of the Harvard University Herbaria: Tennessee, Knoxville, lawn on Terrace Avenue, *W.W. Wyatt 17239*, 27 April 1953 (GH). Another bract anomaly on *C. florida* subsp. *florida* demonstrated by Arnold Arboretum Accession 22791 (no longer living) of *C. florida* is documented by two herbarium specimens collected by Alfred Rehder: one on 11 May 1944; the other on 18 May 1948 (both A). This accession which was growing near the Jamaica Plain gate of the Arnold Arboretum had four bracted inflorescences, of which only two opposing ones were upright and incurved at their apices, and only a few of these erect narrow bracts were coherent at their apices. Rehder noted that this accession did not show any reduction of the number of flowers in the inflorescence.

It is obvious, and perhaps unfortunate, that the “Chinese lantern” feature (Lowrey 1990) caused by the coherence of the involucre bract tips is not a consistent diagnostic character displayed only by *Cornus florida* subsp. *urbiniana*. It can be said, however, that apparently the coherent bract apices are the general rule, rather than the exception, for *Cornus florida* subsp. *urbiniana*; whereas coherent bract tips for *C. florida* subsp. *florida* are the exception, rather than the general rule.

The involucre bracts of *Cornus florida* subsp. *urbiniana* are much narrower in relation to width when compared to the “normal” bracts of “typical” *C. florida* subsp. *florida*. For subsp. *urbiniana*, they average 5.2 cm long and 2.2 cm wide at anthesis; whereas those of subsp. *florida* are two to three times wider. While in the “Chinese lantern” configuration the involucre bracts of subsp. *urbiniana* are strongly keeled (folded) ventrally, and even if they separate naturally, often by wind action, they remain keeled. The average number of flowers per each inflorescence was 17 for subsp. *urbiniana* and 27 for the two cultivars of subsp. *florida*. The percentage of aborted pollen was higher (ca. 20%) for subsp. *urbiniana* than normal (ca. 1%). The diameter of stained pollen grains of subsp. *urbiniana* was 40 μ , slightly and insignificantly smaller than normal (43 μ). Some meiotic abnormalities were suspected to occur in subsp. *urbiniana*, where 2-3% of the stained pollen ranged from 52.8 μ to 62.4 μ . These large, apparently viable, pollen grains probably had more than the normal gametic complement ($n = 11$) of chromosomes, and could give rise to progeny with more than the diploid ($2n = 22$) number of chromosomes.

A number of herbarium specimens deposited in the U.S. National Arboretum Herbarium (NA) were also studied, and are cited here for purposes of documentation. All of the “flowering” specimens of subsp. *urbiniana* cited below demonstrate adherent or coherent bract apices. However, many of these coherent bract apices separate with senescence, a fact also observed on the living material growing of the U.S. National Arboretum.

MEXICO. Nuevo León State: Municipio de Villa Trinidad to Potrero Redondo, tree 1 ft x 40 ft., abundant along arroyo banks in dense pine-oak forest, *C.H. Mueller* 2945, August 23, 1939 (also examined at GH); *ibid.*, 11 mi. w. from El Cercado and junction with México highway 85 and 7 mi. from Horsetail Falls in the high Sierra Orientale, elev. 5300 ft., small tree, 7-8 m tall, d.b.h. 2-3 dm., single trunks, pine-oak forest, common locally along forest edge and lightly within, n. facing slope, fruits greenish with slight pink tinge, *W. Hess & G. Wilhelm* 4354, June 12, 1978.

CULTIVATED. UNITED STATES. Washington: University of Washington Arboretum, Seattle, deciduous small tree, 25 ft. tall, with cream white bracts, grown from seeds collected in México, Nuevo León State, along arroyo 6 mi. east of Dulces Nombres, Sierra Madre Oriental, coll. F.G. Meyer, August 23, 1948, *Joseph Witt*, May 31, 1966 (also examined at A); *ibid.*, Arboretum Accession No. 865-48, from Missouri Botanic Garden, St. Louis, seed collected near Vera Cruz, México, *Herbarium Committee Arboretum Foundation Unit Council*, June 6, 1975. District of Columbia: Washington, U.S. National Arboretum, NA Accession No. 57778, received as a 10 ft. plant from Dr. Allen G. Hirsh, American Red Cross, Bethesda, Maryland on June 3, 1986, "the *C. florida* collected by Lynn Lowrey, North Star Nursery, TX at Sierra Madre Oriental, Monterrey, México," *E.J. Garvey*, February 15, 1992; *ibid.*, *E.J. Garvey*, April 13, 1992; *ibid.*, tree single trunked at base, ca. 15 ft. tall, base diam. ca. 4 inches, trunk branches into 2 main stems 2 ft. from ground level, each stem ca. 2 inches in diam.; bark smooth, light brownish grey; leaves moderate yellowish green and somewhat lustrous above, light bluish green, dull and pubescent below; petioles yellowish green; flowers mostly yellowish green with light bluish green sepals; involucre bracts white, mostly adherent at tips, with age some bract tips separating, *A. Fournier*, May 12, 1992.

Additional herbarium specimens of *Cornus florida* subsp. *urbiniiana* were studied at the Harvard University Herbaria, and are important to cite here.

MEXICO. Nuevo León State: Sierra Madre Oriental, northside of ridge above Puertos El Cerado, 30 south of Monterrey, abundant in Arroyo, *C.H. & M.T. Mueller*, 13 May 1934 (A); *ibid.*, Municipio de Villa Santiago, Potrero Redondo west to Puerto a Lacuna Sanchez and beyond, abundant in cañon beyond west Puerto in dense oak woods, small tree up to 8" x 30', *C.H. Mueller* 2115, 5 July 1935 (A - orig. det. as *C. disciflora* DC. var. *floccosa* [Wang.] Standley); *ibid.*, mountains near Monterrey, *C.H. & M.T. Mueller*, July 1933 (A - orig. det. *C. disciflora* DC.); *ibid.*, below Alamar, about 15 m SW of Galeana, scattered in densely wooded waterway on canyon floor, *C.H. & M.T. Mueller* 1141, 21 July 1934 (A); *ibid.*, Dulces Nombres and east to the border with Tamaulipas, tree to 40 ft. tall, bark corrugated, in dense oak-pine woods, near stream course, 1550 meters alt., *F.G. Meyer & D.J. Rogers* 2602, 20 June 1948 (GH); *ibid.*, canyons of Sierra Madres near Monterrey., *C.G. Pringle* 2409, 23 August, 1889 (A). Vera Cruz State: Cerro de San Cristóbal

near Orizaba *locus classicus*, moist slope, 5000 ft, A.J. Sharp 4613, 8 March 1946 (GH); *ibid.*, 2/3 way up Cerro de San Cristóbal, 1/2 m south of Orizaba-*locus classicus*, elev. about 5000 ft., Wayne E. & Margaret S. Manning 53768, 4 August 1953 (GH); *ibid.*, Huatusco, C.A. Purpus 8933, March 1921 (GH).

Lynn Lowrey of Houston, Texas also arranged for us to examine a fruiting specimen of *Cornus florida* subsp. *urbiniana* deposited in the herbarium of the Robert A. Vines Environmental Science Center in Houston, Texas: MEXICO. Nuevo León, Monterrey, Chipinque, C.D. Peterson 1244, 24 July 1988 (SBSC).

Professor John G. Fairey of the Department of Architecture, Texas A&M University, College Station, Texas recently reported (*pers. comm.*) that in the autumn of 1990 he discovered a large number of 60 foot tall trees of this Mexican flowering dogwood in a cloud forest area, 7000 feet elevation, at "El Butano," a very remote and seldom visited giant sinkhole 50 miles southwest of Monterrey, Nuevo León State, northeast México. These trees were growing among *Ilex rubra* S. Watson and *I. discolor* Hemsley (also 60 feet tall), *Taxus globosa* Schlechter, *Picea martinezii* T.F. Patterson (a synonym of *P. chihuahuana* Martínez), and an evergreen *Quercus*.

Another large population of *Cornus florida* subsp. *urbiniana* is reported by Professor Fairey (*pers. comm.*), and consists of thousands of trees in Nuevo León State near La Trinidad at 4500 feet elevation. These trees have extremely large inflorescence bracts, nearly twice as large as those of typical *C. florida* in the United States, yet all are coherent at their apices. The fruits of these trees are also reported as being exceptionally large. Professor Fairey has also discovered (*pers. comm.*) scattered trees with "soft pink" inflorescence bracts in a remote locality approximately 60 miles NW of Ciudad Victoria in Tamaulipas State.

In summary, the correct botanical name for the Mexican flowering dogwood now being grown and promoted as "*Cornus florida* var. *pringlei*" is *C. florida* subsp. *urbiniana* (Rose) Rickett (1945). Whether it is logical to continue to call this plant the "Pringle dogwood" when it is really named in honor of Dr. Manuel Urbina is an issue that does not need to be resolved here.

Cornus florida L. subsp. *urbiniana* (Rose) Rickett, Bull. Torrey Bot. Club 72:223. 1945. BASIONYM: *Cornus urbiniana* Rose, Contrib. U.S. Nat. Herb. 8:53. 1903.

SYNONYMS: *Cornus pringlei* Pringle *ex* Davis, *Life and Work of Cyrus Guernsey Pringle*, pp. 61,65,417,505,721. 1936 - *nomen nudum et illegitimum*. *Cornus florida* L. var. *pringlei* (Pringle *ex* Davis) Lowrey, American Nurseryman 172 (6):142. 1990 - *nomen nudum et combinationes illegitimum*.

Cornus florida L. var. *urbiniana* (Rose) Wangerin, *Das Pflanzenreich* (ed. A. Engler) Heft 41. IV. 229:87. 1910. *Benthamia florida* (L.)

Moldenke var. *urbini* (Rose) Moldenke, Revista Sudamer. Bot. 6:177. 1940. This identical combination was made by Hiroshi Hara eight years after Moldenke (cf. Hara 1948).

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